Amendments to the Claims

This listing of the claims will replace all prior versions and listings of the claims in the application.

Listing of Claims

1. (Currently amended) Beta titanium alloy containing (in mass %):

V: [[10]] 13 to 17%,
Fe: 2 to 5%,
Al: 2 to 5%,
Mo: 0.1 to 3%,

and optionally one or more alloy elements from the group of Sn, Si, Cr, Nb, Zr according to the following proportions:

Sn: 0.1 to 3%,
Si: 0.1 [[≤]] to 2%
Cr: ≤ 2%,
Nb: ≤ 2%,
Zr: ≤ 2%

wherein the beta titanium alloy may additionally comprise contents of C and of elements from the group of the lanthanides,

and as the remainder Ti and inevitable impurities.

2. (Currently amended) Beta titanium alloy containing (in mass %) :

V: [[10.00]] 13.00 to 17.00%,

Fe: 2.00 to 5.00%,

Al: 2.00 to 5.00%,

Mo: 0.10 to 3.00%,

and optionally one or more alloy elements from the group of Sn, Si, Cr, Nb, Zr according to the following proportions:

Sn: 0.10 to 3.00%,

Si: 0.10 to 2.00%,

Cr: $\leq$ 2.00%,

Nb: $\leq$ 2.00%,

Zr: $\leq$ 2.00%,

and as the remainder Ti and inevitable impurities.

3. (Canceled).

4. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims~~, containing 0.5 to 3 mass % Mo.

5. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims~~, containing 0.5 to 3 mass % Sn.

6. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims, characterised in that~~ wherein at ambient temperature it has a yield point $R_{p0.2}$ of at least 1,400 MPa.

7. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims, characterised in that~~ wherein at ambient temperature it has a tensile strength R_m of at least 1,500 MPa.

8. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims, characterised in that~~ wherein at ambient temperature it has a plastic strain $\epsilon_{p0.2}$ of more than 4%.

9. (Currently amended) Beta titanium alloy according to claim 1 or 2 ~~any one of the preceding claims, characterised in that~~ wherein its density ρ does not exceed 4.8 g/cm^3.

10. (Currently amended) Method for manufacturing a product produced from a beta titanium alloy, comprising the following steps:

melting a beta titanium melt having the composition according to claim 1 or 2 ~~any one of claims 1 to 9~~ to form a preliminary product in block form,

hot-forming the preliminary product,

hot end forming the hot-formed preliminary product to form a hot end product,

solution annealing the hot end product,

cold-forming the hot end product to form an end product,

curing treatment of the end product.

11. (Currently amended) Method according to claim 10, ~~characterised in that~~ wherein the hot end forming process is carried out as a hot-rolling process.

12. (Currently amended) Method according to claim 11, ~~characterised in that~~ wherein the hot-rolling process is followed by a coiling process.

13. (Currently amended) Method according to claim 10 ~~claims 10 to 12, characterised in that~~ wherein the alloy elements V, Fe and Al are added by alloying in the form of a master alloy.

14. (Currently amended) Method according to claim 10 ~~any one of claims 10 to 13, characterised in that~~ wherein the preliminary products are rounded blocks, which are hot-formed during the hot-forming process to form billets or mill bars.

15. (Currently amended) Method according to claim 10 ~~any one of claims 10 to 14, characterised in that~~ wherein the hot end product is a wire or a metal sheet.

16. (Currently amended) Method according to claim 11 ~~any one of claims 11 to 15, characterised in that~~ wherein the hot end product is solution annealed after the coiling process.

17. (Currently amended) Method according to claim 16, ~~characterised in that~~ wherein the solution annealed hot end product is cold-formed.

18. (Currently amended) Semi-finished product produced from a beta titanium alloy having the composition according to claim 1 or 2 ~~any one of claims 1 to 9~~.

19-22. (Canceled).